

Experiment Number: A66352

Test Type: **Genetic Toxicology - Bacterial  
Mutagenicity**

**G06: Ames Summary Data**

Test Compound: **Nickel (II) oxide**

CAS Number: 1313-99-1

Date Report Requested: **09/17/2018**

Time Report Requested: **13:41:56**

**NTP Study Number:**

A66352

**Study Result:**

Negative

Experiment Number: A66352  
Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
Time Report Requested: 13:41:56

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	105 ± 9.8	131 ± 3.8	139 ± 5.7	108 ± 8.1	123 ± 5.7
100.0	103 ± 8.8	121 ± 3.6	129 ± 9.7	105 ± 7.5	107 ± 6.3
333.0	114 ± 3.4	125 ± 10.5	132 ± 6.6	102 ± 6.9	132 ± 13.3
1000.0	98 ± 10.4	131 ± 7.3	127 ± 3.5	104 ± 7.3	110 ± 3.5
3333.0	106 ± 7.8	123 ± 3.0	116 ± 5.0	104 ± 7.5	118 ± 1.2
10000.0	87 ± 1.9	103 ± 12.6	97 ± 8.8	92 ± 5.8	102 ± 13.3
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					551 ± 23.0
Positive Control <sup>3</sup>			437 ± 16.4		
Positive Control <sup>4</sup>	855 ± 24.4	949 ± 8.7			
Positive Control <sup>5</sup>				509 ± 23.5	

Experiment Number: A66352  
Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
Time Report Requested: 13:41:56

---

Strain: TA100

---

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control <sup>1</sup>	110 ± 3.5
100.0	118 ± 0.6
333.0	106 ± 4.5
1000.0	98 ± 4.9
3333.0	109 ± 6.7
10000.0	94 ± 5.4
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	538 ± 22.3
Positive Control <sup>4</sup>	
Positive Control <sup>5</sup>	

Experiment Number: A66352  
Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
Time Report Requested: 13:41:56

Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	11 ± 1.8	9 ± 1.0	11 ± 1.5	14 ± 0.3	6 ± 0.3
100.0	9 ± 2.0	9 ± 1.7	10 ± 1.5	15 ± 0.7	8 ± 1.0
333.0	13 ± 0.3	9 ± 2.4	9 ± 1.2	15 ± 2.5	9 ± 1.0
1000.0	12 ± 2.6	13 ± 0.3	11 ± 1.3	11 ± 1.2	6 ± 0.9
3333.0	7 ± 3.5	15 ± 1.2	9 ± 1.9	13 ± 2.0	9 ± 2.4
10000.0	14 ± 0.9	7 ± 0.6	10 ± 3.0	16 ± 0.3	6 ± 0.6
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>3</sup>					265 ± 25.8
Positive Control <sup>6</sup>	933 ± 16.7				
Positive Control <sup>4</sup>		1020 ± 19.0			
Positive Control <sup>5</sup>			229 ± 12.2		
Positive Control <sup>7</sup>				209 ± 3.6	

Experiment Number: A66352  
Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
Time Report Requested: 13:41:56

---

Strain: TA1535

---

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control <sup>1</sup>	13 ± 0.9
100.0	14 ± 0.9
333.0	13 ± 2.1
1000.0	9 ± 1.5
3333.0	11 ± 1.9
10000.0	12 ± 0.0
Trial Summary	Negative
Positive Control <sup>3</sup>	
Positive Control <sup>6</sup>	
Positive Control <sup>4</sup>	
Positive Control <sup>5</sup>	344 ± 30.7
Positive Control <sup>7</sup>	

Experiment Number: A66352

Test Type: Genetic Toxicology - Bacterial  
Mutagenicity**G06: Ames Summary Data**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 09/17/2018

Time Report Requested: 13:41:56

**Strain: TA97**

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	132 ± 6.0	143 ± 1.8	172 ± 6.5	165 ± 3.2	152 ± 5.5
100.0	147 ± 7.0	137 ± 5.5	167 ± 12.1	158 ± 0.6	157 ± 4.6
333.0	160 ± 5.2	157 ± 16.0	162 ± 3.3	168 ± 0.6	162 ± 6.2
1000.0	155 ± 2.7	146 ± 2.9	167 ± 6.4	165 ± 6.2	151 ± 3.8
3333.0	138 ± 7.8	152 ± 7.7	160 ± 9.1	174 ± 4.3	170 ± 15.0
10000.0	163 ± 2.8	155 ± 10.1	158 ± 11.5	153 ± 5.3	183 ± 2.9
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					966 ± 8.4
Positive Control <sup>3</sup>			734 ± 13.5		
Positive Control <sup>5</sup>				647 ± 26.6	
Positive Control <sup>8</sup>	549 ± 16.3	530 ± 10.8			

Experiment Number: A66352  
Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
Time Report Requested: 13:41:56

---

Strain: TA97

---

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control <sup>1</sup>	143 ± 17.6
100.0	135 ± 6.2
333.0	146 ± 11.2
1000.0	163 ± 6.4
3333.0	149 ± 1.5
10000.0	145 ± 7.8
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	573 ± 15.5
Positive Control <sup>5</sup>	
Positive Control <sup>8</sup>	

Experiment Number: A66352  
 Test Type: Genetic Toxicology - Bacterial  
 Mutagenicity

G06: Ames Summary Data  
 Test Compound: Nickel (II) oxide  
 CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
 Time Report Requested: 13:41:56

Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	20 ± 0.6	22 ± 2.7	26 ± 4.9	26 ± 1.5	23 ± 2.7
100.0	17 ± 2.2	21 ± 3.2	31 ± 5.0	23 ± 2.7	22 ± 3.2
333.0	22 ± 2.5	23 ± 3.4	23 ± 3.8	19 ± 1.2	22 ± 3.8
1000.0	16 ± 1.3	20 ± 0.7	18 ± 2.3	18 ± 0.9	23 ± 2.5
3333.0	22 ± 3.2	23 ± 1.8	26 ± 1.7	21 ± 3.2	23 ± 2.3
10000.0	19 ± 2.6	22 ± 2.8	20 ± 0.9	18 ± 0.6	23 ± 2.0
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					484 ± 14.2
Positive Control <sup>3</sup>			443 ± 13.7		
Positive Control <sup>9</sup>	333 ± 7.9	521 ± 22.2			
Positive Control <sup>5</sup>				376 ± 12.7	



Experiment Number: A66352  
Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
Time Report Requested: 13:41:56

---

Strain: TA98

---

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control <sup>1</sup>	22 ± 1.5
100.0	20 ± 3.2
333.0	22 ± 4.9
1000.0	18 ± 2.7
3333.0	21 ± 2.3
10000.0	18 ± 1.7
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	413 ± 6.2
Positive Control <sup>9</sup>	
Positive Control <sup>5</sup>	

Experiment Number: A66352  
Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
Time Report Requested: 13:41:56

Strain: TA102

Dose (ug/Plate)	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	184 ± 8.3	285 ± 6.4	293 ± 20.1
100.0	178 ± 8.6	250 ± 18.2	270 ± 21.9
333.0	185 ± 3.1	296 ± 17.6	241 ± 23.9
1000.0	203 ± 3.1	272 ± 12.3	289 ± 6.4
3333.0	204 ± 3.3	252 ± 1.8	268 ± 24.7
10000.0	137 ± 11.7	199 ± 18.0	221 ± 15.3
Trial Summary	Negative	Negative	Negative
Positive Control <sup>10</sup>	753 ± 3.5		
Positive Control <sup>5</sup>			684 ± 18.0
Positive Control <sup>7</sup>		576 ± 17.3	

Experiment Number: A66352  
Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
Time Report Requested: 13:41:56

Strain: TA104

Dose (ug/Plate)	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	203 ± 16.2	376 ± 12.0	419 ± 17.7
100.0	228 ± 29.2	378 ± 13.9	381 ± 14.0
333.0	205 ± 9.5	380 ± 9.2	405 ± 4.7
1000.0	250 ± 26.0	365 ± 3.2	405 ± 3.8
3333.0	187 ± 8.1	340 ± 11.1	384 ± 19.0
10000.0	193 ± 19.8	307 ± 17.6	242 ± 46.2
Trial Summary	Negative	Negative	Negative
Positive Control <sup>11</sup>			682 ± 33.3
Positive Control <sup>5</sup>		692 ± 20.9	
Positive Control <sup>12</sup>	649 ± 17.5		

Experiment Number: A66352  
Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 09/17/2018  
Time Report Requested: 13:41:56

## LEGEND

---

Values given as Mean or Mean  $\pm$  Standard Error Mean

The number of samples = 3, unless samples marked toxic or contaminated were excluded from mean and SEM calculations

CAS Number = Chemical Abstracts Service registry number

- 1: Vehicle Control: Water
- 2: 1.0 ug/Plate 2-Aminoanthracene
- 3: 2.0 ug/Plate 2-Aminoanthracene
- 4: 5.0 ug/Plate Sodium Azide
- 5: 5.0 ug/Plate 2-Aminoanthracene
- 6: 5.0 ug/Plate N-Methyl-N-Nitro-N-Nitrosoguanidine
- 7: 10.0 ug/Plate 2-Aminoanthracene
- 8: 50.0 ug/Plate 9-Aminoacridine
- 9: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine
- 10: 0.5 ug/Plate Mitomycin-C
- 11: 2.5 ug/Plate 2-Aminoanthracene
- 12: 250.0 ug/Plate Methyl Methane Sulfonate

\*\* END OF REPORT \*\*